2.4.5 Alternative E: Continue Farming for Multiple Objectives, GMGT Corn and Soybeans Allowed for Habitat Restoration Only (Selected Alternative)

Under Alternative E, beginning in calendar year 2012, the use of GMGT corn and soybeans on Refuge System lands in the Midwest Region would continue only for the purpose of habitat restoration. The use of GMGT corn and soybeans would be limited to five years for any individual tract in preparation for habitat restoration. Farming could continue to be used as a management tool for achieving multiple objectives, however, it would be limited to non GMGT crops only for objectives other than habitat restoration. Multiple objectives include but are not limited to the following:

- habitat restoration
- habitat management
- supplemental food for wildlife
- attracting wildlife for viewing and photography

The Service's biological integrity policy specifies that GMGT crops cannot be used on Refuge System lands unless they are "essential to accomplishing refuge purposes." Habitat restoration is a core objective of most refuges and wetland management districts to achieve purposes, and the use of GMGT crops could be essential in some circumstances. However, habitat management, providing supplemental food, and wildlife viewing objectives can more readily be accomplished without the use of GMGT corn and soybeans and thus the use of GMGT crops would not be essential.

Refuge and Wetland Management District managers would be required to demonstrate that their proposed use of GMGT crops is essential for habitat restoration. The Service has established an approval process for the use of GMGT corn and soybeans that includes completion of an Eligibility Questionnaire for Genetically Modified Crops; the Questionnaire is shown in Appendix E. When managers propose to use GMGT corn and soybeans, they would be required to complete this Questionnaire as part of the approval process. The Regional Chief of Refuges, will review all requests for authorization to use GMGT corn and soybeans and will approve or deny requests based on the Questionnaire.

Currently, farming programs involve either Service staff and equipment or a third party, often referred to as a "cooperator," who farms under the terms and conditions of a cooperative farming agreement or special use permit issued by the Refuge or District manager. Refuge and District managers establish how long farming is allowed on a specific tract, establish the crops and crop rotation that will be used, define the process of selecting cooperators, and determine payment rates. The terms and conditions typically include a provision for leaving some percentage of the crops in the field as food for wildlife, primarily migrating birds. The farming activities have to be found compatible through a compatibility determination before they can be allowed.

Refuge and district staffs work with farming cooperators to use best management farming practices to improve soils, reduce pest issues, lessen impacts to wildlife, and to prevent sediment, chemical and nutrient runoff. These practices include crop rotation, cover crops, no-till planting, and use of herbicides with low environmental impact.

Crop type is determined by the refuge and district staffs and is based on wildlife needs, soil types, and integrated pest management. The most commonly planted crops are corn, soybeans, and winter wheat. However, under this alternative, managers would be encouraged to pursue additional crop options (milo, alfalfa, clover, etc,) for use in non-restoration activities.

Farming would continue to be allowed using either conventional farming techniques or no-till (conservation) farming. Using traditional farming techniques, mechanical equipment such as tractors, plows, disks, harrows, and seeders would typically be used on a parcel several days each year. Farming activities could include: soil preparation, planting, nutrient management, pest management, and harvesting (http://www.epa.gov/oecaagct/ag101/crop.html).

Conditions outlined in the Service's cooperative agreement would be followed. Many of these conditions relate to the Environmental Protection Agency's CORE 4 conservation practices:

- Conservation tillage
- Crop nutrient management
- Pest management
- Conservation buffers